

SUGAR-CONTAINING AMPHIPHILIC OLIGOMERS

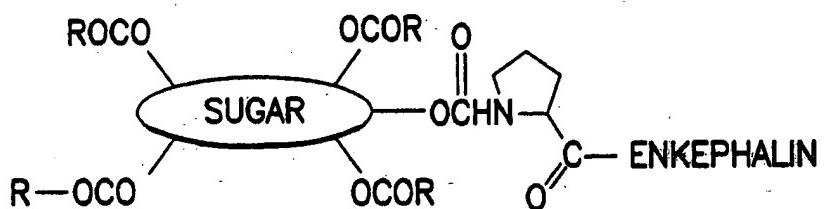


FIG. 1A

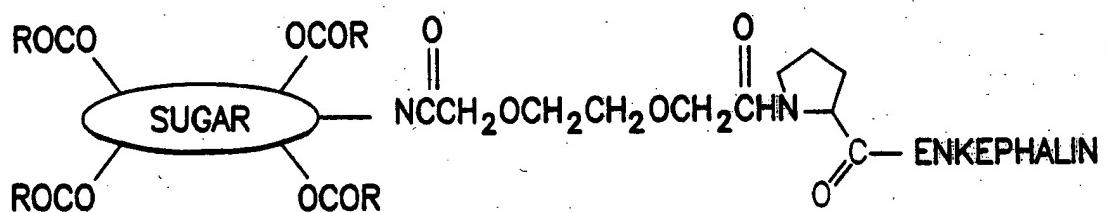


FIG. 1B

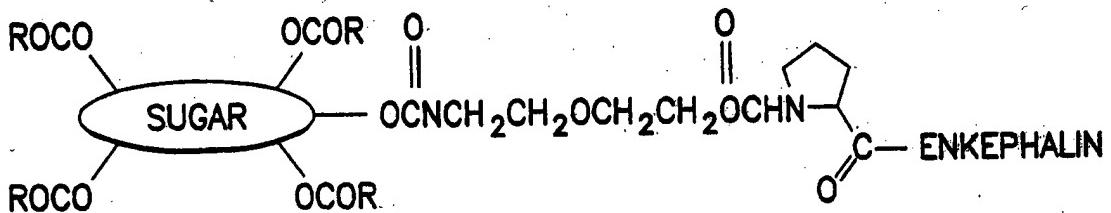
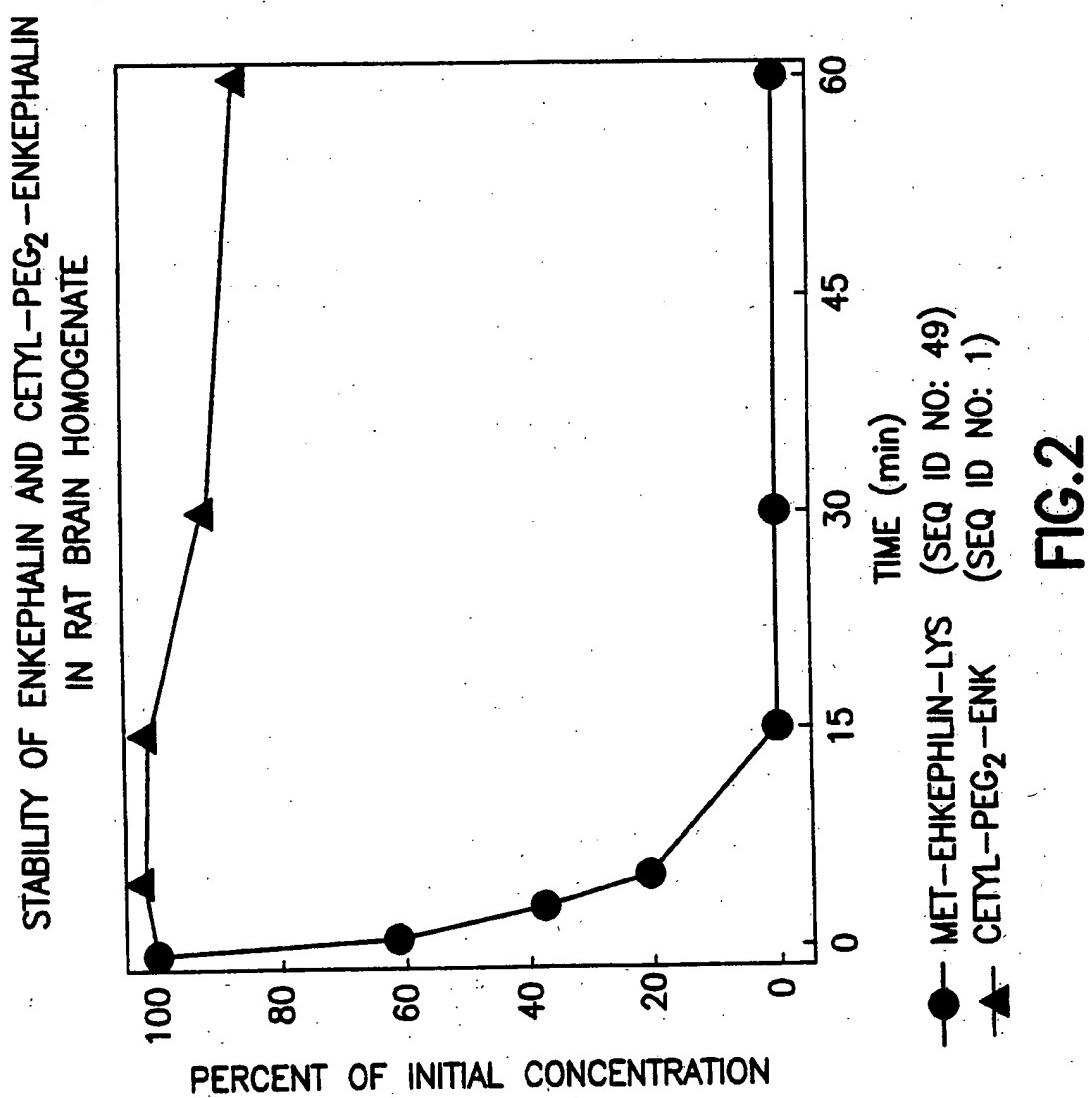


FIG. 1C

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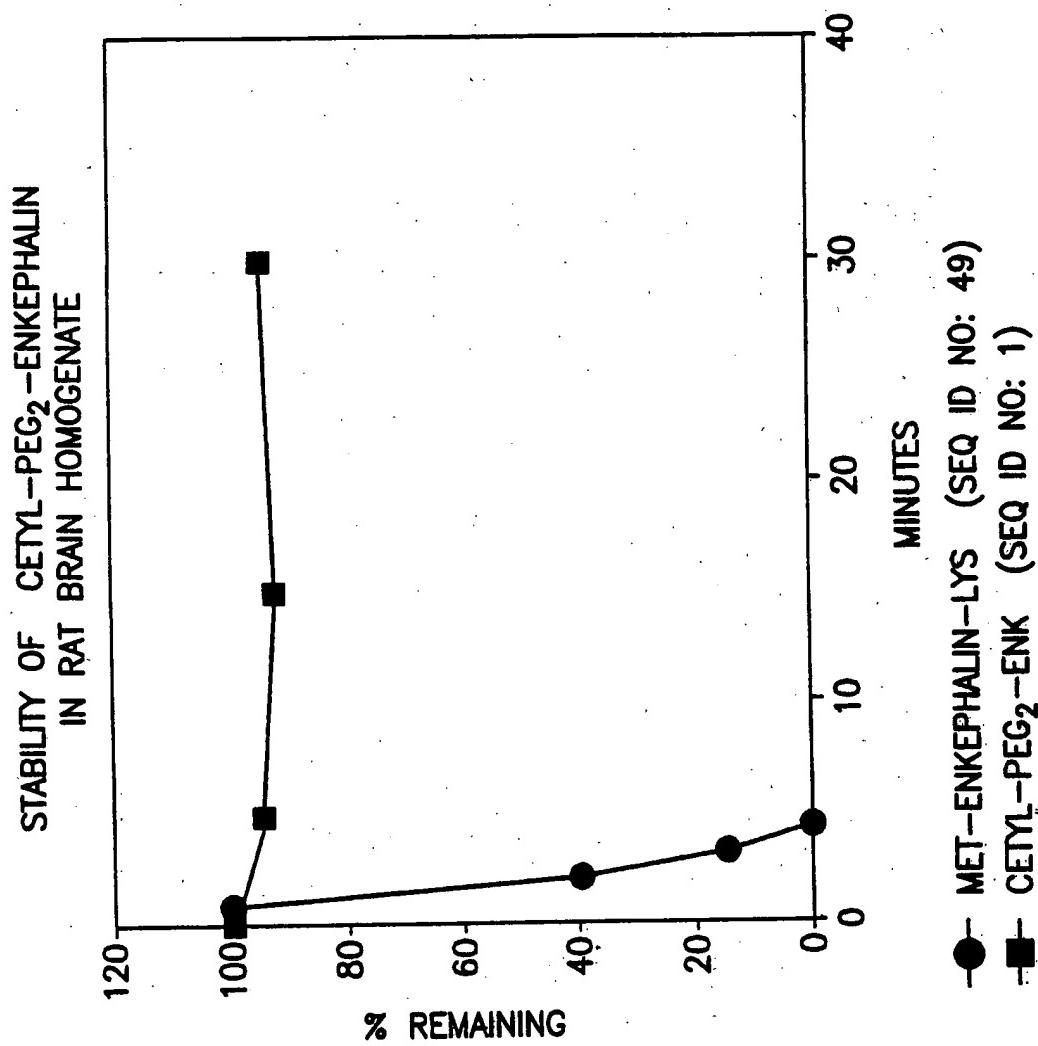


FIG. 3

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STABILITY OF PALMITATE-PEG₃-ENKEPHALIN
IN RAT BRAIN HOMOGENATE

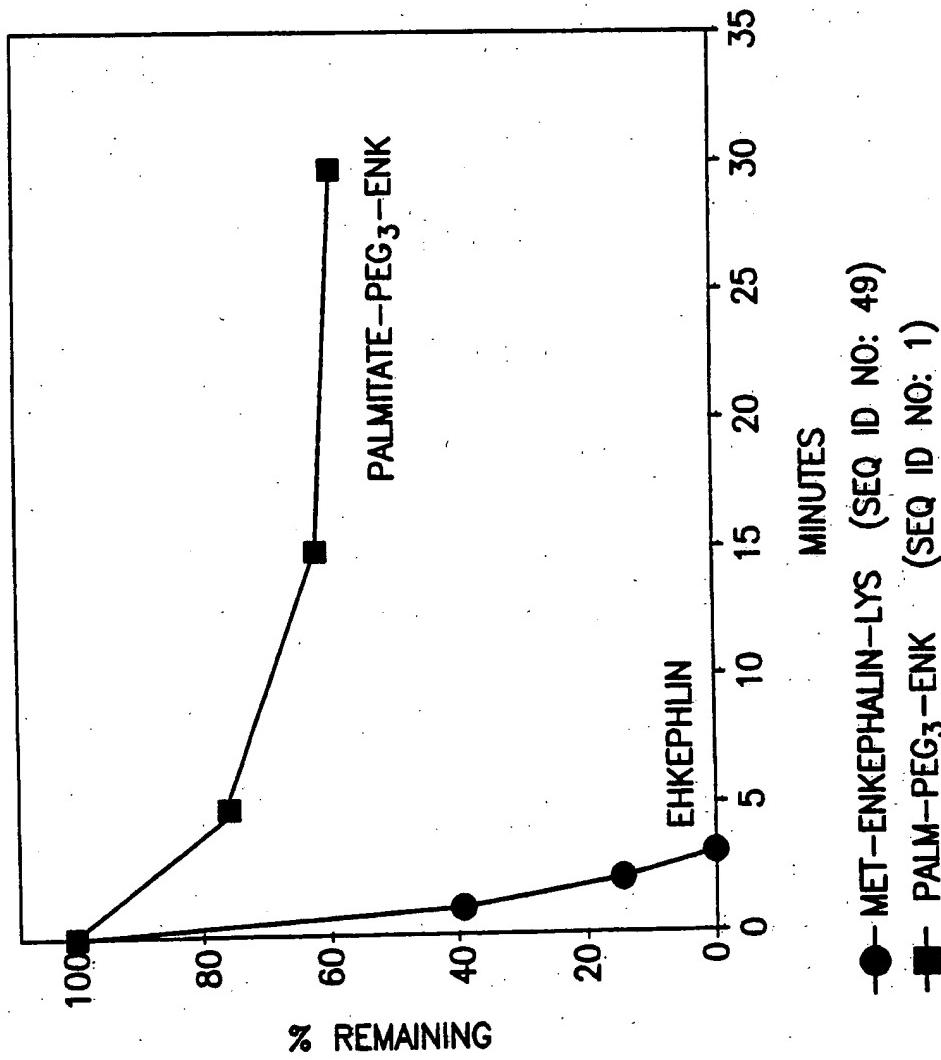


FIG. 4

ISOLATION OF CETYL-PEG₂-ENKEPHALIN (SEQ ID NO: 1) FROM THE BRAIN

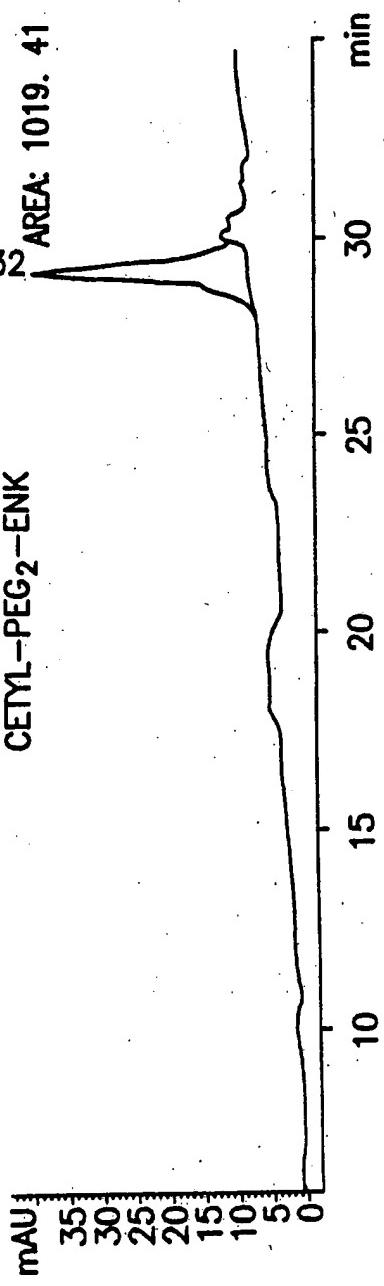


FIG.5A

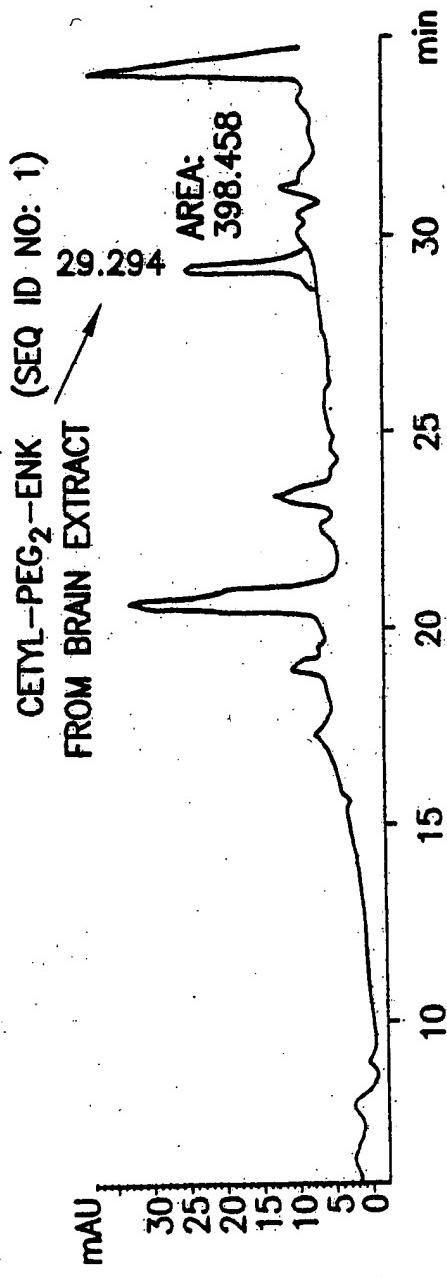
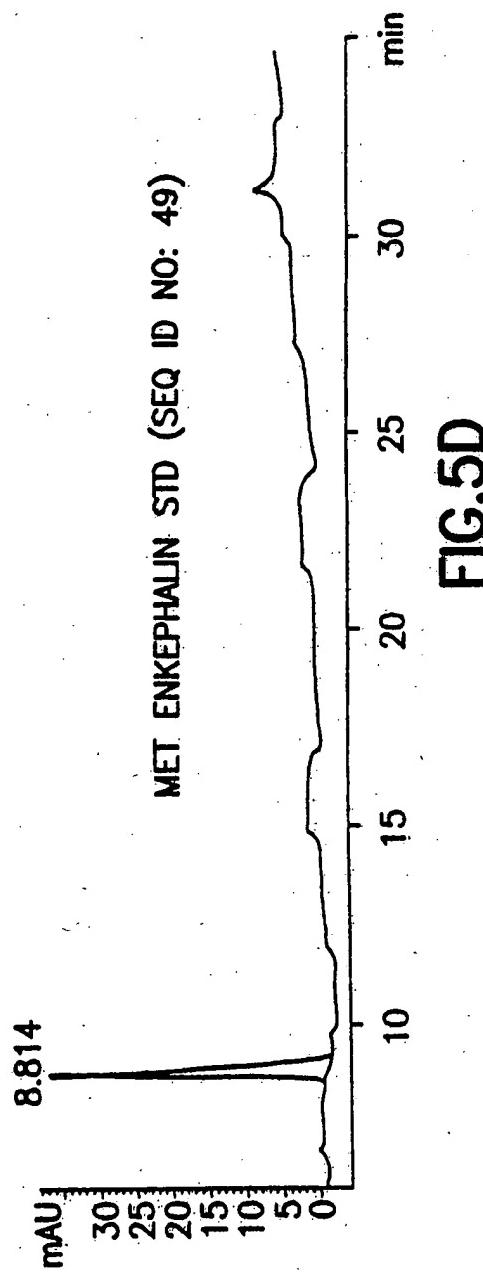
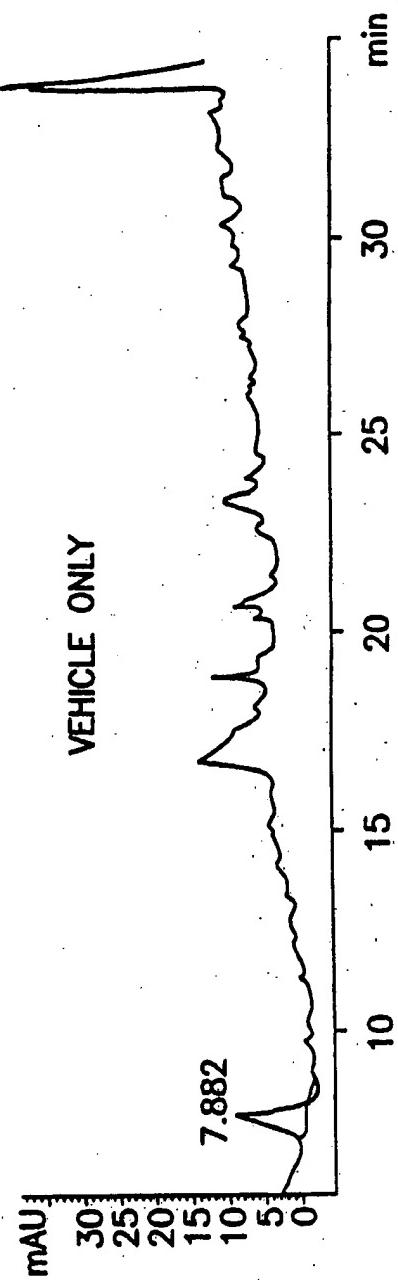


FIG.5B

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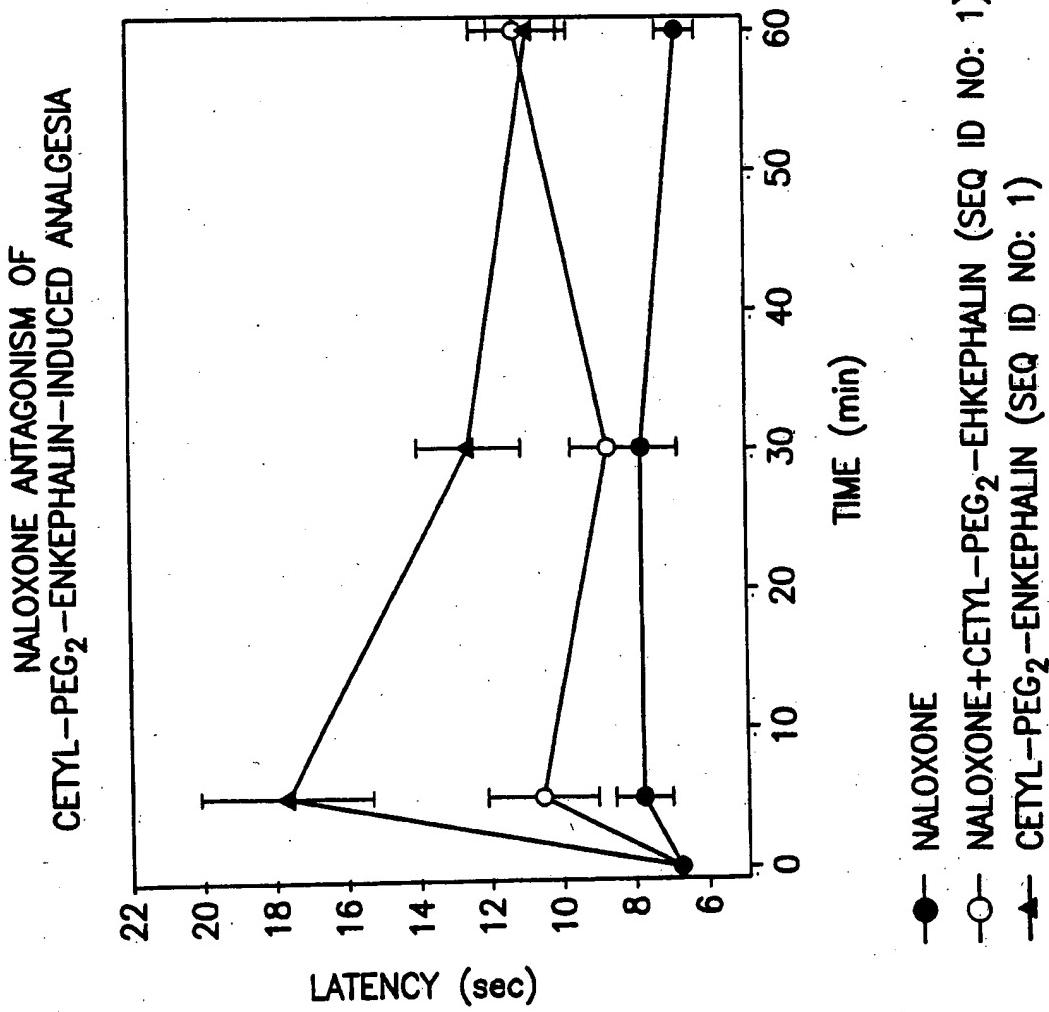


FIG.6

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ANALGESIC EFFECT OF A 5 mg/kg IV DOSE OF CETYL-PEG₂-ENKEPHALIN MONOCONJUGATE IN THE RAT HOT-PLATE ASSAY (SEQ ID NO: 1)

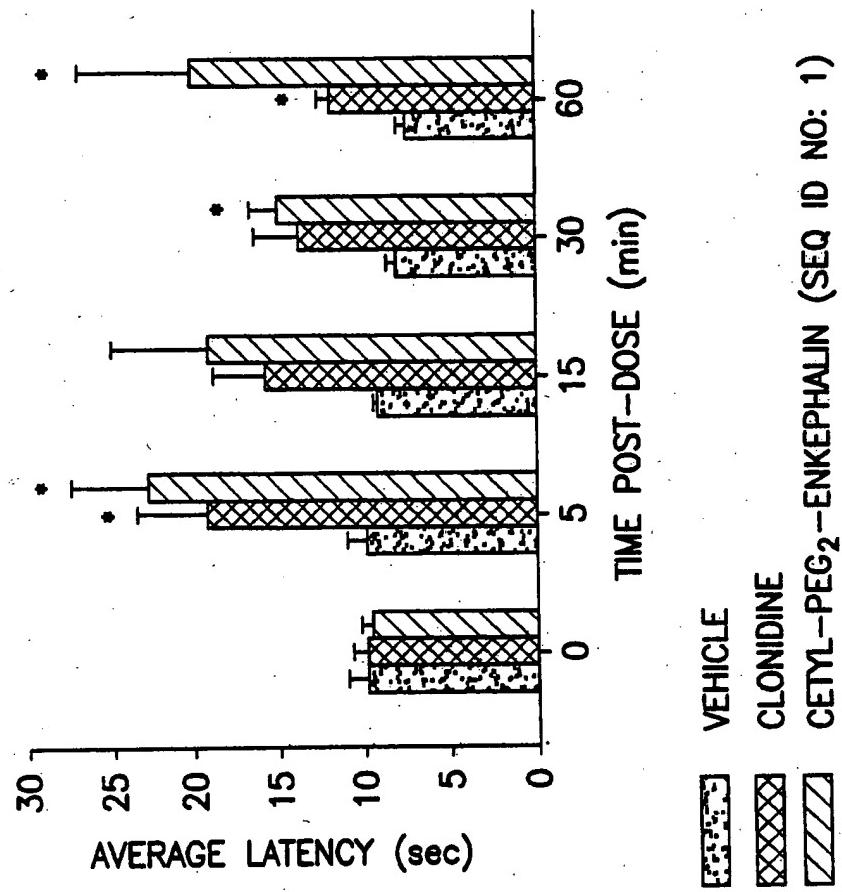


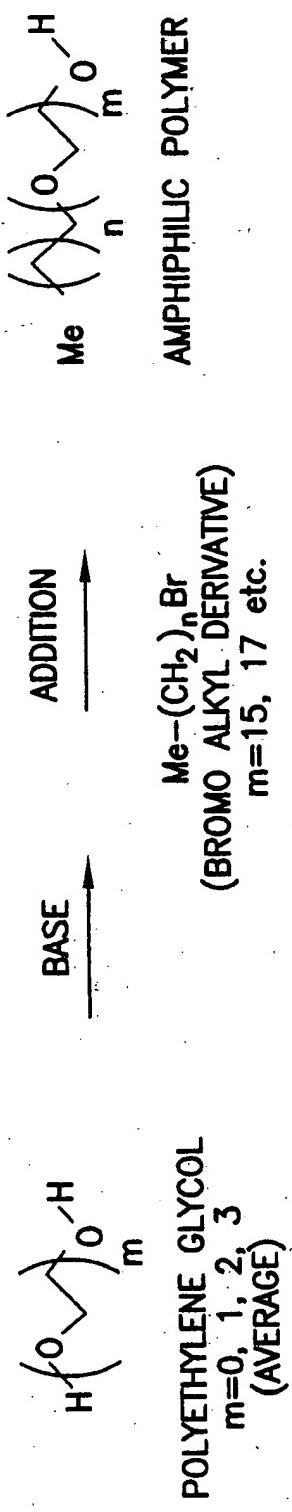
FIG.7

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COMPARISON OF μ -RECEPTOR BINDING AFFINITY OF ENKEPHALIN CONJUGATES		
DRUG OR CONJUGATE	DETAILED STRUCTURE	% SPECIFIC BINDING
NALOXONE	NALOXONE	100
ENKEPHALIN	MET-ENKEPHALIN-LYS (SEQ ID NO: 49)	67
CETYL-ENK	CETYL-PEG ₂ -ENK (SEQ ID NO: 1)	100
CHOL-ENK	CHOLESTEROL-PEG ₃ -ENK (SEQ ID NO: 1)	95
DHA-ENK	DHA-PEG ₂ -ENK (SEQ ID NO: 1)	63
PALM-ENK	PALMITATE-PEG ₃ -ENK (SEQ ID NO: 1)	76
CETYL-TEG-ENK	CETYL-PEG ₃ -ENK (SEQ ID NO: 1)	100

FIG.8

SYNTHESIS OF OLIGOMER



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"FREE END"

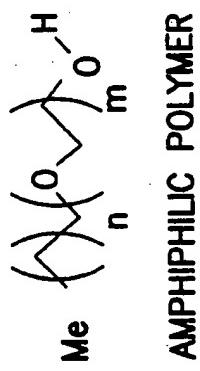
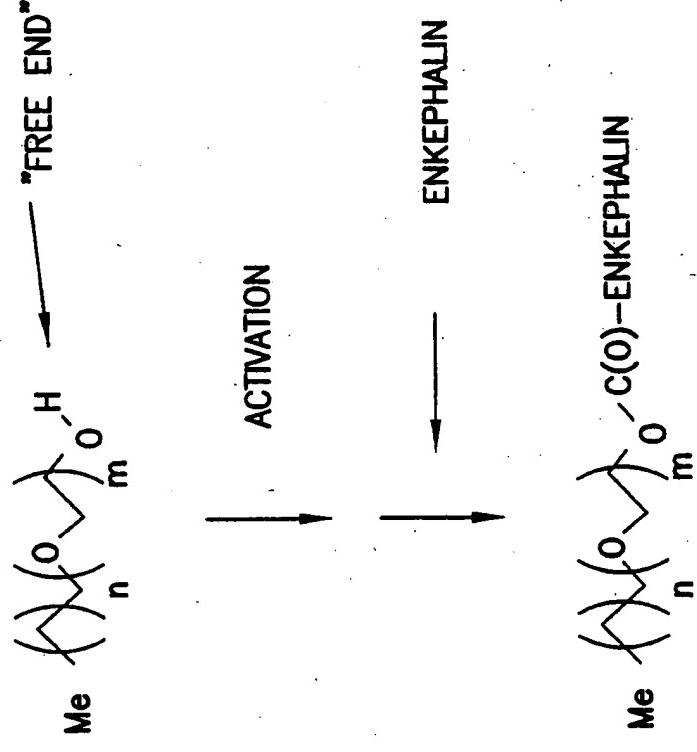


FIG.9

ATTACHMENT OF OLIGOMER TO ENKEPHALIN



OLIGOMER-ENKEPHALIN-CONJUGATE

EXAMPLE m=14 AND n=2 CETYL-PEG₂-ENKEPHALIN

FIG.10

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